



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,475	02/27/2002	Hidetoshi Mishima	1560-0375P	8666

2292 7590 07/11/2006

BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

TOPGYAL, GELEK W

ART UNIT	PAPER NUMBER
----------	--------------

2621

DATE MAILED: 07/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/083,475	Applicant(s) MISHIMA ET AL.	
	Examiner Gelek Topgyal	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 56-60 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 56-60 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 08/533,109.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. **Claims 56-60** are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,009,236 in view of Fujinami et al. (US 5,455,684).

Regarding claim 56 of this application, claim 1 of U.S. Patent No. 6,009,236 recites a digital video signal record and playback device for recording and playing back on a recording medium in units of several frames a digital video signal coded in units of several frames in which an I picture for an intra-frame coding, a P picture for a motion compensation prediction in a forward direction, and a B picture for the motion compensation prediction by using as reference pictures the I picture and the P picture

located before and after in time, said device comprising: means for dividing one frame portion of video data into n areas ($n > 1$) with respect to at least the I picture for intra-frame coding at the time of recording; means for recording a central area by giving recording priority on the recording medium to the central area with respect to the I picture frame which is divided into the n areas, while at the same time recording position information representative of the recording position on the recording medium of divided 1 through n areas; means for reading only the central area located at the center of the I picture from the recording medium at the time of special playback; a buffer memory for storing data in the central area which is read; and means for outputting only data in the central area which is read; but fails to teach a disk (recording medium) stored with video data units comprising a sequence of I, P, and B frame preceded with a control data packets which includes the address information of I-picture and P-picture data in the video data unit.

In an analogous art, Fujinami et al. teaches a recording and reproducing apparatus capable of recording a stream that includes at least one pack onto a recording medium, e.g. an optical disk (Fig. 3). The pack includes a pack header followed by several video packets. The video packets include a header (video_packet_header) followed by a frame of a video (I,P or B frame). Fujinami et al. teaches in his system to have the ability to add entry points to a video stream when an I-frame is detected during a recording process, wherein an entry packet is added to the multiplexed stream (Figs. 13-14). The entry packet contains the location of the current I-frame (Fig. 14, Current_#_video_streams), and subsequently, since the P or B frames

will follow an I-frame in an MPEG stream, the location of the P frame is equally stored (Col. 12, lines 28-57).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the address information of I and P frame data into an entry packet stored on a recording medium (disk) as taught by Fujinami et al. into claim 1 of U.S. Patent No. 6,009,236 to allow for regular or trick play abilities during playback so that a user can watch a desired sequence of video stored on the recording medium.

Apparatus for reproducing claim 57 of this application is rejected over *device* claim 1 of U.S. Patent No. 6,009,236 for the same reasons as discussed in disk claim 56 of this application above.

Method for reproducing claim 58 of this application is rejected for the same reasons as discussed above in apparatus for reproducing claim 57 of this application.

Method for recording claim 59 of this application is rejected over device claim 1 of U.S. Patent No. 6,009,236 for the same reasons as discussed in disk claim 56 of this application above and additionally, the recording and playback device of U.S. Patent No. 6,009,236 can practice the method for recording as claimed.

Disk claim 60 is rejected for the same reasons as discussed in disk claim 56 and method for recording claim 59 of this application above.

3. **Claims 56-60** are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 6 of U.S. Patent No. 6,134,382 in view of Fujinami et al. (US 5,455,684).

Regarding claim 56 of this application, claim 6 of U.S. Patent No. 6,134,382 recites a digital video signal record and playback device for recording and playing back on a recording medium in units of several frames a digital video signal coded in units of several frames in which an I picture for an intra-frame coding, a P picture for motion compensation prediction in a forward direction, and a B picture for motion compensation prediction by using as reference pictures the I picture and the P picture located before and after in time, said device comprising: means for dividing one frame portion of video data into n areas ($n > 1$) with respect to at least the I picture and the P picture at the time of recording, and coding the data in the area unit which is divided into n areas; means for giving recording priority on the recording medium to the I picture out of the I picture and the P picture which are divided into the n areas, and recording the position of the area for record starting, by scrolling in units of the I and the P picture frame when recording in an area unit, the I picture and the P picture divided into n areas, while at the same time recording position information representing the record position on the recording medium of each area in a group of pictures (GOP); means for reading from the recording medium at least the I picture or the P picture at the time of the special playback; a buffer memory for storing data of the I picture or the P picture which is read; means for outputting the data of the I picture or the P picture which is read, in units of frames as the special playback picture; and interpolating means for interpolating an area which cannot be read using data of a preceding screen when the whole I picture or the whole P picture area cannot be read; but fails to teach a disk (recording medium) stored with video data units comprising a sequence of I, P, and B frame preceded with a

control data packets which includes the address information of I-picture and P-picture data in the video data unit.

In an analogous art, Fujinami et al. teaches a recording and reproducing apparatus capable of recording a stream that includes at least one pack onto a recording medium, e.g. an optical disk (Fig. 3). The pack includes a pack header followed by several video packets. The video packets include a header (video_packet_header) followed by a frame of a video (I, P or B frame). Fujinami et al. teaches in his system to have the ability to add entry points to a video stream when an I-frame is detected during a recording process, wherein an entry packet is added to the multiplexed stream (Figs. 13-14). The entry packet contains the location of the current I-frame (Fig. 14, Current_#_video_streams), and subsequently, since the P or B frames will follow an I-frame in an MPEG stream, the location of the P frame is equally stored (Col. 12, lines 28-57).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the address information of I and P frame data into an entry packet stored on a recording medium (disk) as taught by Fujinami et al. into claim 6 of U.S. Patent No. 6,134,382 to allow for regular or trick play abilities during playback so that a user can watch a desired sequence of video stored on the recording medium.

Apparatus for reproducing claim 57 of this application is rejected over device claim 6 of U.S. Patent No. 6,134,382 for the same reasons as discussed in disk claim 56 of this application above.

Method for reproducing claim 58 of this application is rejected for the same reasons as discussed in apparatus claim 57 of this application above¹.

Method for recording claim 59 of this application is rejected over device claim 6 of U.S. Patent No. 6,134,382 for the same reasons as discussed in device claim 56 of this application above and additionally, the recording and playback device of U.S. Patent No. 6,134,382 can practice the method for recording as claimed.

Disk claim 60 of this application is rejected for the same reasons as discussed in disk claim 56 and method for recording claim 59 of this application above.

4. **Claims 56-60** are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 2 of U.S. Patent No. 6,549,717. Although the conflicting claims are not identical, they are not patentably distinct from each other because

Regarding claim 56 of this application, claim 2 of U.S. Patent No. 6,549,717 recites an optical disk, in which video data obtained by coding a digital video signal by the use of a motion compensation prediction and a DCT is recorded, the video data comprising I pictures which are intra-frame coded pictures, P pictures which are one direction prediction coded pictures and B pictures which are bi-directional prediction coded pictures, wherein said video data includes video data blocks, each including a sequence of at least one each of an I picture, a P picture and a B picture, wherein a system stream including a video packet formed of a said video data block and a private packet having a stream ID of a private stream is recorded on said optical disk, wherein

address information corresponding to a sector for at least the next following said I picture in said video data block is recorded in said private packet, and wherein said private packet in which said address information is recorded is arranged so that said private packet is followed by said video data block containing said I picture without another I picture disposed therebetween. It is noted that claim 56 of this application teaches an optical disk with the information recorded thereon and is broader than and encompass claim 2 of U.S. Patent No. 6,549,717 and; therefore, obviousness-type double patenting rejected is applied.

Apparatus for reproducing claim 57 of this application is rejected over disk claim 2 of U.S. Patent No. 6,549,717 for the same reasons as discussed in disk claim 56 of this application above and additionally, the disk of U.S. Patent No. 6,549,717 can be reproduced by the apparatus for reproducing as claimed.

Method for reproducing claim 58 of this application is rejected for the same reasons as discussed in apparatus claim 57 of this application above.

Method for recording claim 59 of this application is rejected over claim 2 of U.S. Patent No. 6,549,717 for the same reasons as discussed in disk claim 56 of this application above and additionally, the disk of U.S. Patent No. 6,549,717 can be created by the method for recording as claimed.

Disk claim 60 of this application is rejected for the same reasons as discussed in disk claim 56 and method for recording claim 60 of this application above.

5. **Claims 56-60** are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 50-54, respectively of copending Application No. 10/083,267 in view of Fujinami et al. (US 5,455,684).

Regarding claim 56 of this application, claim 50 of copending Application No. 10/083,267 recites an optical disk containing digital video information obtained by coding a digital video signal using motion compensation prediction, said digital video information comprising intra-coded I-picture data, predictive-coded P-picture data and bidirectionally predictive-coded B-picture data: said digital video information comprising video data units, each of said video data units comprising a sequence of said I-picture data, said P-picture data and said B-picture data, wherein each of said video data units has a control data packet located before said video data unit, said control data packet containing control information for presenting said digital video information, wherein said control information includes start address of a previous video data unit and a next video data unit; but fails to particularly teach that the address information of I-picture data and a P-picture data in video data unit is stored in the control data packet.

In an analogous art, Fujinami et al. teaches a recording and reproducing apparatus capable of recording a stream that includes at least one pack onto a recording medium, e.g. an optical disk (Fig. 3). The pack includes a pack header followed by several video packets. The video packets include a header (video_packet_header) followed by a frame of a video (I, P or B frame). Fujinami et al. teaches in his system to have the ability to add entry points to a video stream when an

I-frame is detected during a recording process, wherein an entry packet is added to the multiplexed stream (Figs. 13-14). The entry packet contains the location of the current I-frame (Fig. 14, Current_#_video_streams), and subsequently, since the P or B frames will follow an I-frame in an MPEG stream, the location of the P frame is equally stored (Col. 12, lines 28-57).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the address information of I and P frame data into an entry packet stored on a recording medium (disk) as taught by Fujinami et al. into claim 50 of copending Application No. 10/083,267 to allow for regular or trick play abilities during playback so that a user can watch a desired sequence of video stored on the recording medium.

Regarding claim 57 of this application, claim 51 of copending Application No. 10/083,267 recites an apparatus for reproducing digital video information contained in an optical disk according to claim 50, wherein said control information is used to present said digital video information.

Regarding claim 58 of this application, claim 52 of copending Application No. 10/083,267 recites a method for reproducing digital video information contained in an optical disk according to claim 50, wherein said control information is used to present said digital video information.

Regarding claim 59 of this application, claim 53 of copending Application No. 10/083,267 recites a method for recording digital video information on a recording medium, said digital video information being obtained by coding a digital video signal

using motion compensation prediction, said digital video information comprising intra-coded I-picture data, predictive-coded P-picture data and bidirectionally predictive-coded B-picture data, said method comprising: forming video data units, each of said video data units comprising a sequence of said I-picture data, said P-picture data and said B-picture data, creating control data containing control information for presenting said digital video information, said control data including start address of a previous video data unit and a next video data unit, forming a system stream comprising said video data units, each of said video data units having said control data, and recording said system stream on said recording medium; but fails to particularly teach that the address information of I-picture data and a P-picture data in video data unit is stored in the control data packet.

In an analogous art, Fujinami et al. teaches a recording and reproducing apparatus capable of recording a stream that includes at least one pack onto a recording medium, e.g. an optical disk (Fig. 3). The pack includes a pack header followed by several video packets. The video packets include a header (video_packet_header) followed by a frame of a video (I, P or B frame). Fujinami et al. teaches in his system to have the ability to add entry points to a video stream when an I-frame is detected during a recording process, wherein an entry packet is added to the multiplexed stream (Figs. 13-14). The entry packet contains the location of the current I-frame (Fig. 14, Current_#_video_streams), and subsequently, since the P or B frames will follow an I-frame in an MPEG stream, the location of the P frame is equally stored (Col. 12, lines 28-57).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the address information of I and P frame data into an entry packet stored on a recording medium (disk) as taught by Fujinami et al. into claim 50 of copending Application No. 10/083,267 to allow for regular or trick play abilities during playback so that a user can watch a desired sequence of video stored on the recording medium.

Regarding claim 60 of this application, claim 54 of copending Application No. 10/083,267 recites an optical disk containing digital video information recorded by a method according to claim 53.

This is a provisional obviousness-type double patenting rejection.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. **Claims 56 and 60** are rejected under 35 U.S.C. 101 because it is directed to an information storage medium.

When nonfunctional descriptive material is recorded on some computer-readable medium, it is not statutory since no requisite functionality is present to satisfy the practical application requirement. Merely claiming nonfunctional descriptive material stored in a computer-readable medium does not make it statutory. See MPEP 2106.IV.B.1.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. **Claims 56-60** are rejected under 35 U.S.C. 102(e) as being anticipated by Fujinami et al. (US 5,455,684).

Regarding claim 56, Fujinami et al. teaches an optical disk containing digital video information obtained by coding a digital video signal using motion compensation prediction, said digital video information comprising intra-coded I-picture data, predictive-coded P-picture data and bidirectionally predictive-coded B-picture data (Fig. 3, and 6 shows a sequence of coded frames of I, P and B frames, and col. 12, lines 12-27 discusses intra (I) and inter frames P or B (disclosed as no-I frame)):

said digital video information comprising video data units, each of said video data units comprising a sequence of said I-picture data, said P-picture data and said B-picture data (Fig. 3, 6, and col. 12, lines 12-27, discusses intra (I) and inter frames P or B (disclosed as no-I frame) to be sequenced in a pack. The pack includes a pack header followed by several video packets. The video packets include a header (video_packet_header) followed by a frame of a video (I, P, or B frame));

wherein each of said video data units has a control data packet located before said video data unit, said control data packet containing control information for presenting said digital video information (Fig. 13, 14 shows that the entry pack is located before video data unit, and col. 12, lines 28-57 discloses a data `current_#_video_streams` within the entry pack which stores the location of the currently viewed frame),

wherein said control information includes address information of said I-picture data and a P-picture data in said video data unit (Fig. 13, 14, and col. 12, lines 28-57, teaches that the entry packet contains the location of the current I-frame (Fig. 14, `Current_#_video_streams`), and subsequently, since the P or B frames will follow an I-frame in an MPEG stream, the location of the P frame is equally stored.

Apparatus for reproducing claim 57 is rejected for the same reasons as discussed in disk claim 56 above, and furthermore, cols. 15-16 discusses the apparatus for reproducing the data on a disk (DSM 10).

Method for reproducing claim 58 is rejected for the same reasons as discussed in apparatus for reproducing claim 57 above.

Method for recording claim 59 is rejected for the same reason as discussed in disk claim 56. The cited areas of Fujinami et al. teaching the limitations used in claim 56 above applies to a recording apparatus implementing the recording method as claimed.

Disk claim 60 is rejected for the same reasons as discussed in method claim 59 and disk claim 56 above.

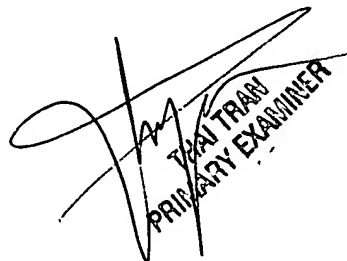
Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gelek Topgyal whose telephone number is 571-272-8891. The examiner can normally be reached on 8:30am -5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Gelek Topgyal
7/6/2006


THAI TRAN
PRIMARY EXAMINER